

ON THE ANATOMY OF *ENSIS MACHA*, *SOLEN FONESII*,
AND *S. VIRIDIS*.

By H. H. BLOOMER.

Read 10th November, 1905.

By the kindness of Professor E. Ray Lankester, F.R.S., Director of the British Museum, and Mr. Edgar A. Smith, I.S.O., I have been enabled to examine the following species:—

1. *ENSIS MACHA*, Molina.

E. macha resembles *E. ensis*, but is more massively built. It is comparatively shorter, broader, and deeper. The edge of the posterior end of the proximal portion of the siphon is quite straight, while in *E. ensis* it curves a little anteriorly at the centre. The fourth aperture is longer, and situated nearly in the centre of the ventral surface; in *E. ensis* it is more posterior.

The muscular flaps enclosing the pedal aperture are larger and curve more inwardly than in *E. ensis*.

The anterior adductor muscle is not so broad, but has a greater increase in depth towards the posterior end. The distance from the posterior adductor muscle to the end of the proximal portion of the siphon is not so great as in *E. ensis*. In the free portions of the siphon (which are longer than in *E. ensis*) the walls of the two chambers are coneresced for some distance. The tentacles bordering the siphonal apertures are not nearly so numerous as in *E. ensis*.

Internally, though the alimentary canal resembles that of *E. ensis*, the fore-part of the stomach is different. The central cavity is situated more anteriorly, the pyloric division is larger, and the œsophageal and the cardiac divisions are smaller. The muscular ridge separating the two last-mentioned divisions, and which appears as a continuation of the muscular papilla, is much more pronounced, while the œsophageal division projects more anteriorly.

2. *SOLEN FONESII*, Dunker.

Solen Fonesii resembles *S. vagina*. The following are the points of difference:—

The animal is proportionately shorter and deeper, the length being only four and a half times the depth. The anterior edge of each mantle-lobe is straight, not curved as in *S. vagina*, and runs a little antero-ventrally. The muscular flaps of the pedal aperture are broader and are capable of entirely closing it. Their exterior surface is coloured a brownish black in the specimen examined; a part of the free portion of the siphon has been broken off, but what remains shows the transverse ribbing to be finer and closer, and to be coloured the same as the muscular flaps of the pedal aperture. A narrow band of

this pigment traverses the ventral edge of the mantle-lobes, and a still narrower one passes from the siphon along the greater portion of the dorsal integument.

The anterior adductor muscle is relatively longer and deeper, but not nearly so broad as in *S. vagina*, thus making the anterior part of the animal considerably shorter.

3. *SOLENS VIRIDIS*, Say.

S. viridis also resembles *S. vagina*, differing from it in being comparatively deeper and more attenuated at the posterior end. The pedal aperture has a greater curve and extends a little more posteriorly on the ventral surface. The centre of the posterior part of the proximal portion of the siphon curves a little anteriorly, and around the posterior edge of it is a narrow brownish-black band.